

12th Irlen International Conference Houston
Conquering New Directions...Opening New Horizons

The Irlen Method in the Context of Ophthalmology, Optometry and Therapies for People with Special Needs

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Dornach - Switzerland

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Introduction

I would like to invite you to travel with me through different methods (other « directions »). It may be that they are very close or very far from Irlen. What I would like is to find out some common aspects but although clear limites. This would be a condition for mutual respect and at the same time the condition for communication, for explication and finally to successfull cooperation.

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Programme

- Introduction
- Cooperation with other professionals
- Conditions of visual perception
 - Light
 - Contrast
 - Size
- Light/colour stimulation as treatment
- The Irlen Methode
 - Light and the Irlen Methode
 - Contrast and the Irlen Methode
 - Size and the Irlen Methode
- Different possibilities of functional testing
- Conclusion

Cooperation with other professionals

Medical and optic

- Ophthalmologists
- Orthoptist
- Opticians/Optometrists
- ...

Education, Psychology

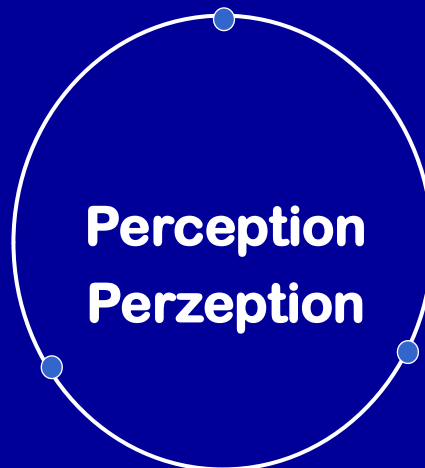
- Occupational therapists
- Teacher, teacher for children with special needs
- Psychologist
- ...

Other therapists dealing with the visual system

Training and treatment

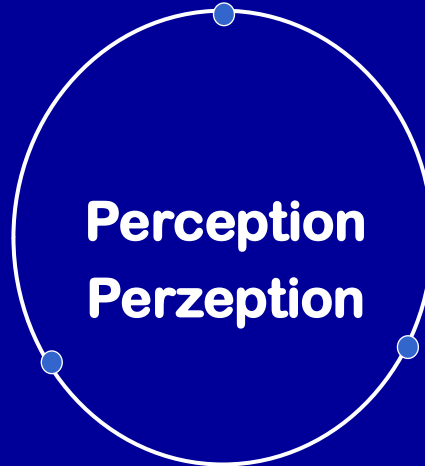
- behavioral optometry, functional optometry,
- Visual training orthoptic treatment
- Syntonic phototherapy
- Orthoptic treatment
- Edu Kinesiology, f.i. Creativ Vision

What are the conditions of visual perception
Voraussetzungen der Perzeption



Conditions of visual perception Voraussetzungen der Perzeption

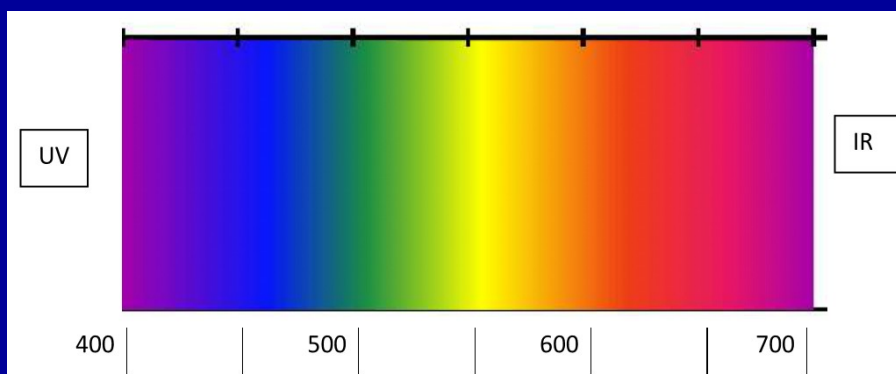
Light Licht



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Light



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Switzerland

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Light and colors stimulation as treatment Phototherapies and light therapies

- Dr. Dietrich K. Klinghardt, Regulationsdiagnostik und Psychokinesiologie
- Steven Vasquez, Emotional transformation therapy
- Syntonic
- Lüscher Farbttest
- Paul Dennison, Edu-Kinesiology-Creativ Vision
- SAD Seasonal affective disorder treatment

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Light and colors stimulation as treatment Phototherapies and light therapies

Dr. Dietrich K. Klinghardt

- Dr. Dietrich K. Klinghardt uses the term “color coding of memories”. Memories are color-coded! Use the right code and the memory surfaces. To make the connection to the repressed conflict-material, the practitioner has to determine the exact correct color.



Klinghardt Dietrich K., Dr. Med.
Lehrbuch der Psycho-Kinesiologie,
INK – Institut für Neurobiologie,
Freiburg Germany, 2012 10. Auflage

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Light and colors stimulation as treatment Phototherapies and light therapies

Steven Vasquez has given us discoveries for using light as a singular constant in the resolution of complex human emotion. He has created a reproducible technology of psychotherapeutic diagnosis, prescription and treatment protocols for emotional distress.



- There are different system for generating light in use f. i. Chromapulse II, Photron® Light stimulator. This method tends to be a stronger stimulus then using reflective surfaces.

Steven R. Vasquez, Emotional Transformation Therapy ETT®, First Rowman & Littlefield Publishing Group, 4501 Lanham, Maryland 20706, 59

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Light and colors stimulation as treatment Phototherapies and light therapies



Dr. Steven Vasquez



Photron® Light stimulator

Color can be emitted from a reflective surface such as fabric, paper, ore any object, or from a generated light source such as a light bulb or fire. Assuming that both a generated light source an a reflective light source are equal in brightness and saturation, the colors emitted can have a very similar effect. In terms of impact on the human system, the generated light source tends to be the stronger stimulus. ETT® utilizes both reflected an emitted light.

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Light and colors stimulation as treatment

Phototherapies and light therapies

Syntonics therapy

- The purpose of the Syntonics therapy is to balance the system with a sympathetic or parasympathetic or stabilizing stimulus.
- If that stimulus after a time is not the right stimulus anymore, it will become a stressor. This means that at that moment the sympathetic nervous system will react.

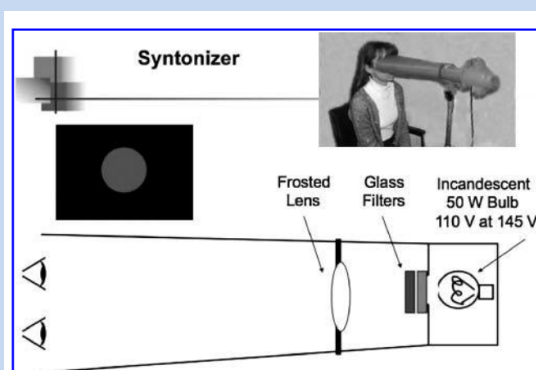
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Light and colors stimulation as treatment

Phototherapies and light therapies

Syntonics Optometry



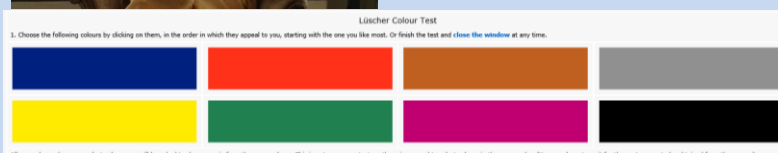
Raimond L. Gottlieb,
Syntonics Phototherapy, in
Photomedicine and Laser
Surgery, Volume 28,
Number 4, 2010, page
450

FIG. 1. A patient taking a syntonics treatment. The details of the instrument are described in the text of the article. [Modified from Gottlieb, R.L. (2010). Syntonics Phototherapy: Mechanisms for Low Light Therapy. Proc. SPIE 7552, 75520N-1-9]

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Light and colors stimulation as treatment Phototherapies and light therapies



The Lüscher-Color-Diagnostic® measures a person's psychophysical state, his or her ability to withstand stress, to perform, and to communicate. It uncovers the cause of psychological stress, which can lead to physical symptoms.

<http://kahome.eu/cgi-bin/lscr.pl?data=1204365712046357>

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Edu Kinesiology-Creativ Vision

Creative Vision presents an exploration of vision and the relationship of vision to movement, academic skills, other senses and the accompanying Techniques you will learn foundational kinesthetic skills developed in infancy and early childhood. In-Depth Vision Training provides a structure to improve visual information processing by unveiling hidden perceptual gifts blocked by the Homolateral Reflex Repatterning survival mechanism. Creative Vision presents a subjective and objective exploration of the student's visual capacity.



Dr. Paul E. Dennison, Ph.D., is a professional educator, a pioneer in the field of kinesiology, and an authority on the breakthrough attainment of cognitive and academic skills.

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Summary: Color frequencies as treatment

Colored light is used in a psychotherapeutic way.

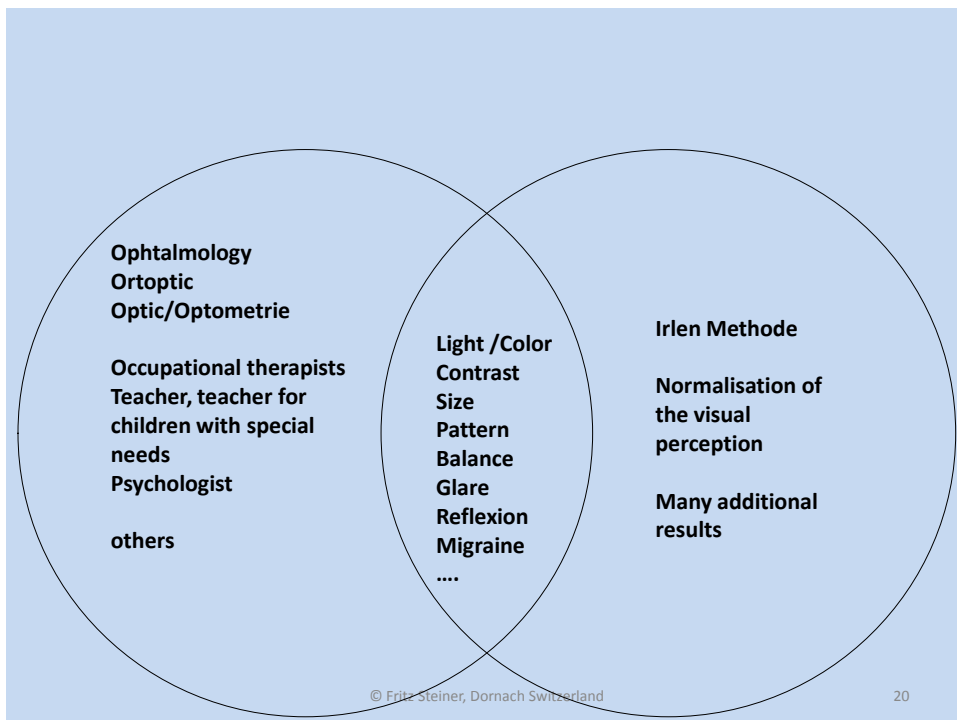
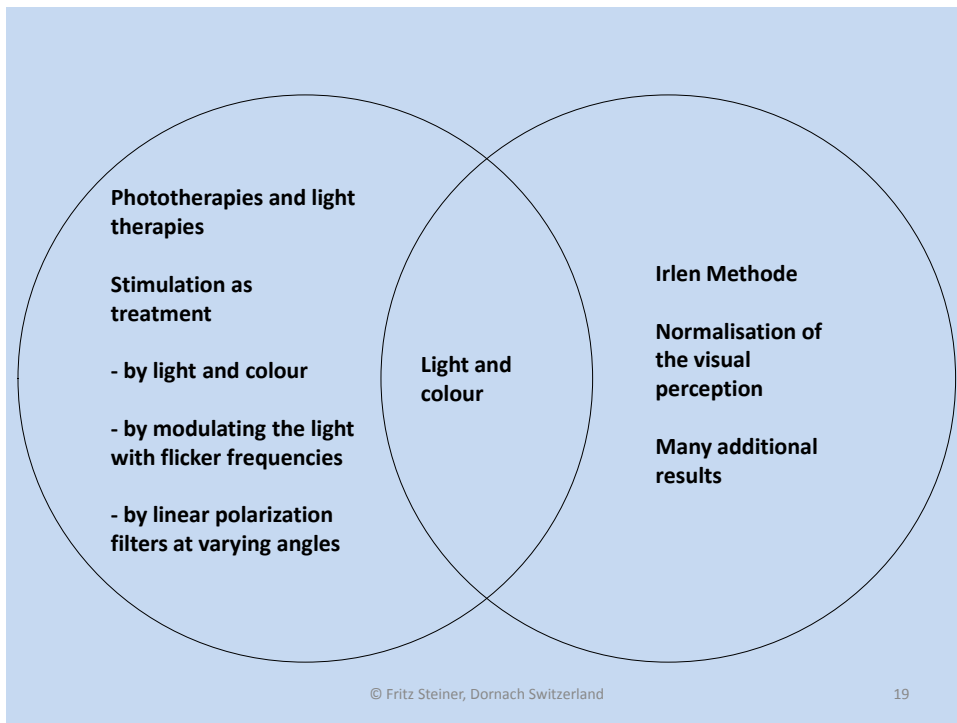
The light is beamed into the eyes by a reflecting surface, with a projector-like device or colored glasses are worn. A distinct color frequencies can reactivate synapses in the brain were previously blocked.

Modulating the light with flicker frequencies in addition to color is used in different methods.

Linear polarization filters at varying angles is used by Klinghardt. They pretend to reach more specific regions within the brain on that way.

Using the known physiological effects of color:

- Blue – activates the parasympathetic nervous system.
calms – often used for hyperactive children.
- Red – activates sympathetic nervous system.
Blue-Green – heals post-traumatic tissue-injuries.
Yellow – anti-depressive.
- Yellow/Green – liver detox.
- Magenta – brings deeply held conflicts and emotions to the surface.



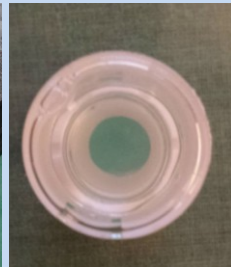
Irlen Method



Irlen Overlays



Irlen Spectralfilters



Irlen Contactlenses



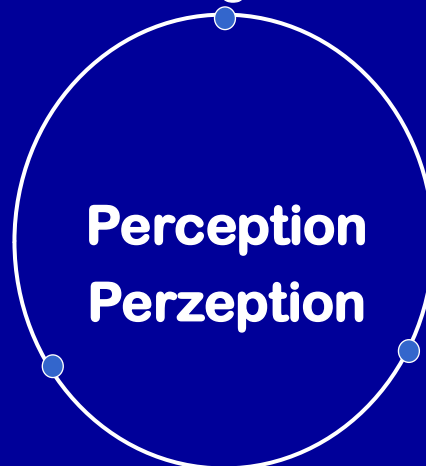
Colored light

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Conditions of visual perception Voraussetzungen der Perzeption

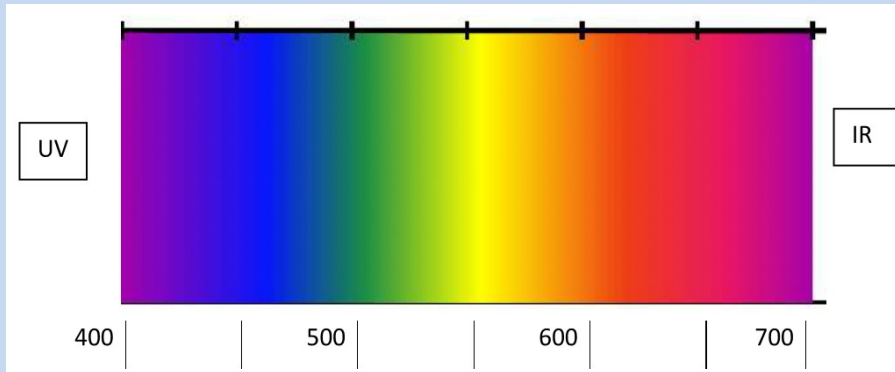
Light Licht



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Light and the Irlen Method



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PHILIPS

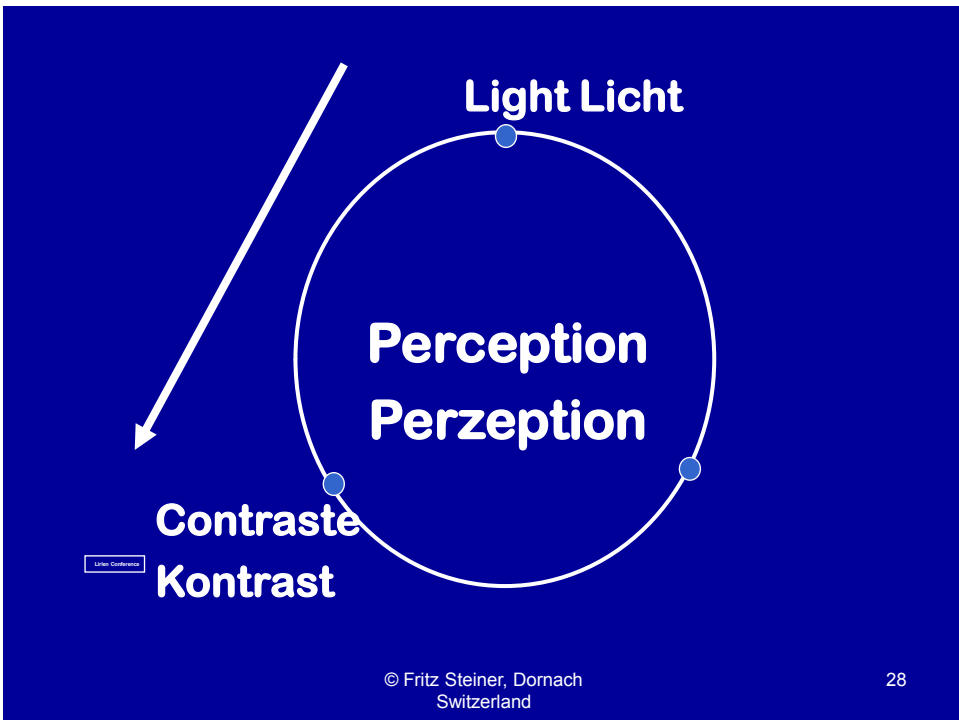
LivingColors

- 16,000,000 colors
- light output 210 lumen
- remote control

LED

Color your world with light.

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Contraste

Low Contrast

Arial 15

Andreas war kein Kind wie alle anderen. Richtige Kinder in seinem Alter toben gern herum. Sie fahren freihändig Rad, lernen Tennis, essen gern Wiener Schnitzel mit Pommes und streiten bei jeder Gelegenheit.

Andreas sass gern auf einer Mauer und sah dem kleinen bunten Vogel zu, der so eifrig mit dem Schnabel in einer Birke hackte.

Arial 12

Oder er schlenderte den Kanal entlang und hörte auf die Musik des Wassers. Er ass gern Reisaufwurf und rohe Mohrrüben und sass allein in einer Schulbank, weil niemand neben einem Mickerling wie ihm sitzen wollte.

Ob ich wirklich ein Mickerling bin? überlegte Andreas. Und wenn ja, was ist eigentlich schlimm daran?

Gar nichts ist schlimm daran, sagte seine Mutter.

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High Contrast

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Arial 9.5

Mickerlinge sind blöd, sie haben keine Muskeln, sagten die aus seiner Klasse. Man kann sie umschmeissen, und sie wehren sich nicht einmal. Manchmal warteten sie nach der Schule auf Andreas. Paul, Bernhard und Manu, hinter der Unterführung. Dann quetschten sie ihn zwischen sich oder gegen die Betonwand, je nachdem.

Auch heute lauerten sie ihm auf. Bernhard hatte eine Holzente an einen Bindfaden gebunden und auf den Bürgersteig gesetzt. Gleich würde er sie sehen und nach ihr greifen. Und so war es. Als Andreas sich bückte, um die Ente aufzuheben, zertrümmerte Bernhard an der Schnur. Andreas sah sechs Füße, die sich bedrohlich um ihn aufbauten.

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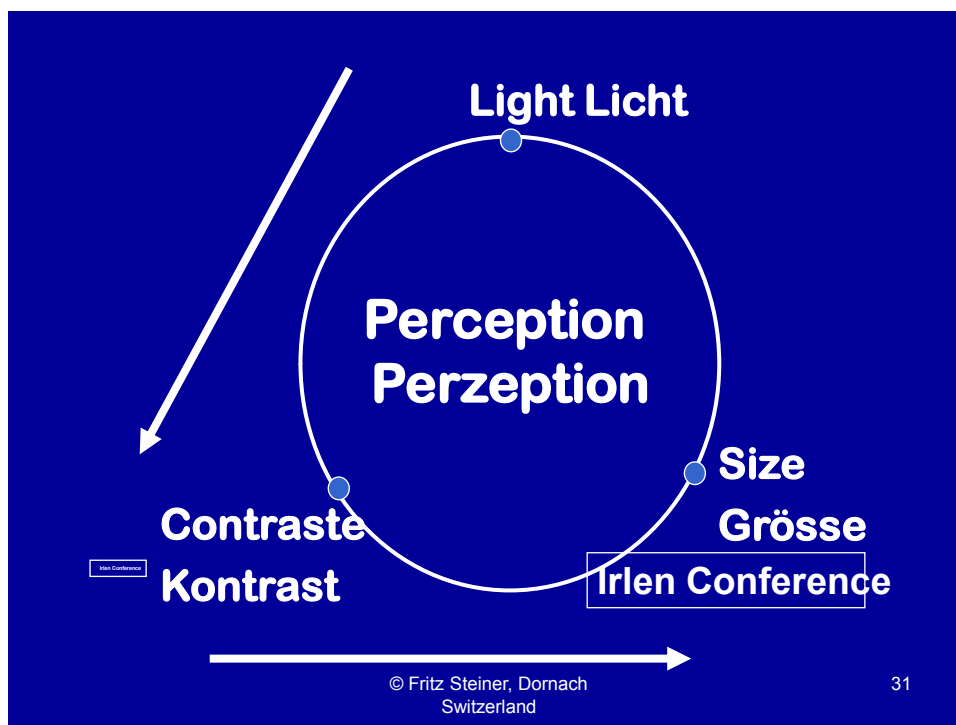
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Print size

Irlen Syndrome is described as a dysfunction associated with “excess sensitivity of the retina to particular frequencies of the light spectrum”.

This light sensitivity can be shown by difficulty with fluorescent lights, bright lights, sunlight, and can make individuals feel tired, sleepy, dizzy, anxious, or irritable.

Now, stay with me because I'm going to make this simple to understand, and it may be VERY important for you and/or your child. Individuals with this visual processing “glitch” may have some, many, or all of the following symptoms:

Reading Problems: Poor comprehension, Misreads words, Problems tracking from line to line, Reads in dim light, Skips words or lines, Reads slowly or hesitantly, Takes breaks, Loses place, Avoids reading. Discomfort: Strain and fatigue, Tired or sleepy, Headaches or nausea, Fidgety or restless, Eyes that hurt or become watery. Attention and Concentration Problems: Problems with concentration when reading and doing academic tasks, Often people can appear to have other conditions, such as attention deficit disorder, and are given medication unnecessarily.

Writing Problems: Trouble copying, Unequal spacing, Unequal letter size, Writing up or downhill, Inconsistent spelling, Other Characteristics: Strain or fatigue from computer use, Difficulty reading music, Sloppy, careless math errors, Misaligned numbers in columns, Ineffective use of study time, Lack of motivation, Grades do not reflect the amount of effort.

Depth Perception: Clumsiness, Difficulty catching balls, Difficulty judging distances, Additional caution necessary while driving.

Distortions: Words on the page lack clarity or stability; i.e., may appear to be blurry, moving, or disappear. What causes Irlen syndrome? There are a few theories about what is going on in the brain with this syndrome. (I won't go into the details, but if you're interested, ask for the reference list.)

Print size

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Print size and colour

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Crowding effect?



Bridget Riley
Waterfall

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Print size – Font scaling –crowding effect

0.8

This light sensitivity can be shown by difficulty with fluorescent

1.0

This light sensitivity can be shown by difficulty with fluorescent

1.2

This light sensitivity can be shown by difficulty with fluorescent

Normal

This light sensitivity can be shown by difficulty with fluorescent

Schmal

This light sensitivity can be shown by difficulty with fluorescent

Erweitert

This light sensitivity can be shown by difficulty with fluorescent

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Conquering New Directions

Different possibilities of functional testing and comparing the results

- Let's go in a systematic way through different possibilities of functional testing of different functions of the visual system.
- Using different standard assessments, it is possible to observe and document Irlen Symptoms. These are important tools to make different groups of professionals more conscious of the visual discomfort, visual perception problems and visual stress experienced by patients with Irlen Syndrome.
- On the other hand, all of the presented tests can be used by Irlen Screener and Diagnostician for functional measurements of the visual performance.
- The results are a base for discussion with other professionals and for reports. Although the measurements are not made under clinical condition they gave an important input for better understanding the symptoms.

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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Visual Acuity Contrast Sensitivity	VA-LCS-Testcards by Buser/Steiner	VA, fluency, movement, change, comfort

Visual acuity is the spatial resolving capacity of the visual system. This may be thought of as the ability of the eye to see fine detail. There are various ways to measure and specify visual acuity, depending on the type of acuity task used. Visual acuity is limited by diffraction, aberrations and photoreceptor density in the eye (Smith and Atchison, 1997). Apart from these limitations, a number of factors also affect visual acuity such as refractive error, illumination, contrast and the location of the retina being stimulated.

From the point of view of Irlen Syndrome:

- The interaction of the receptors.
- The selective sensitivity of the cones.
- The ability to hold fixation.

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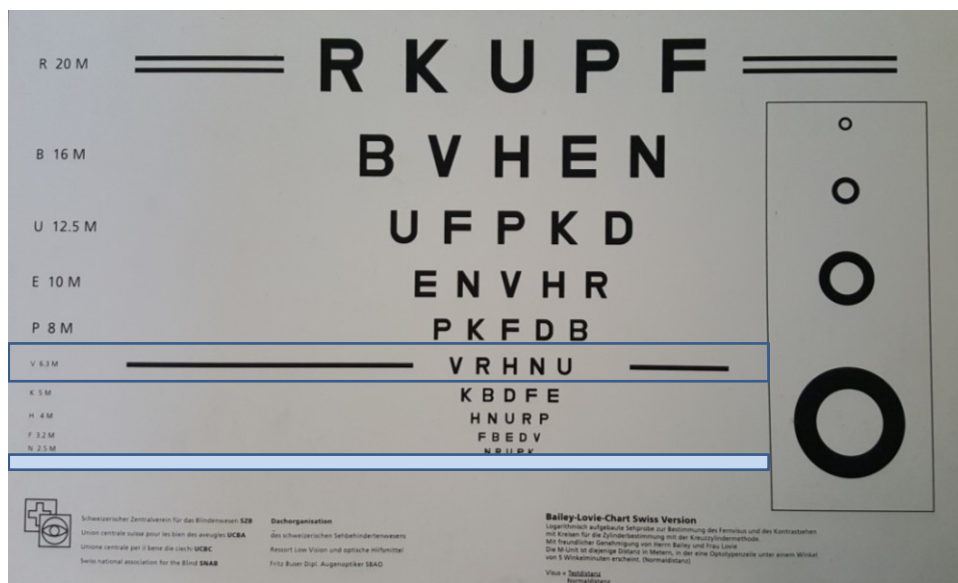
38

Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Visual Acuity Contrast Sensitivity	VA-LCS-Testcards by Buser/Steiner	VA, fluency, mouvement, change, comfort



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VA without OVL: $3/6.3 = 0.476$

VA with OVL turquoise: $2/3 = 1.5$

Finally tint: B69+K240A+U99

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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Need of magnification	SZB Need of magnification	need of magnification, fluency, comfort, hold fixation

SNAB Test to determinate the need of magnification

A shy deer springs through the bushes searching for a place to graze.
2.5x TNR 24 Pt.

A golden bumble-bee hums her way through the dewy morning grass.
2x TNR 19 Pt.

Only a mole stays underground, digging his tunnel through the damp earth looking for food.
1.6x TNR 15 Pt.

The nature has awoken. It's spring at last. The days are getting longer and the trees and flowers are in bloom. Forgotten is the cold, and snow of winter.
1.25x TNR 12 Pt.

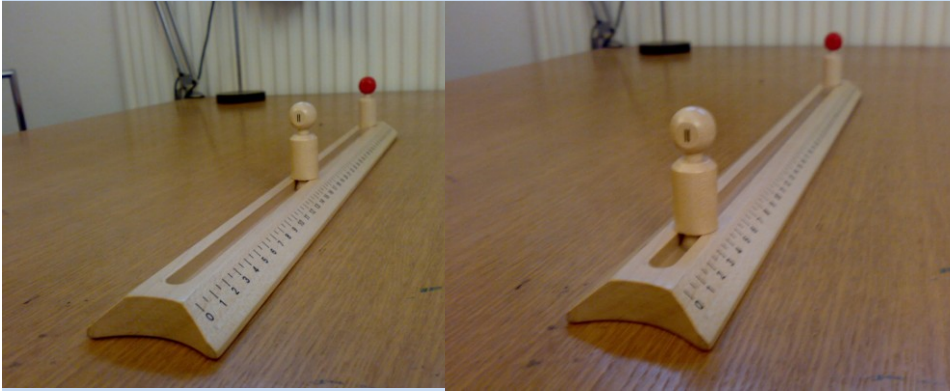
Newsprint
Zurich DFA Yesterday was a lovely day with temperatures of around 20 degrees centigrade with almost no wind. Many people were out strolling contentedly by the side of the lake enjoying the beautiful seasonal weather. This is the herald of spring. It has come late this year but now it is here.
1x TNR 9.5 Pt.

Controltext 1:
This writing is smaller than a newspaper article and is rarely used. Don't worry if you have difficulties, it's quite normal.
0.8x TNR 7.5 Pt.

Controltext 2:
This writing is extremely small. If you can read it, you should have no problems with any print.
0.63x TNR 6 Pt.


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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Accommodation-Convergence	A=C-Bar by Dr. med. D. Safra	Result, comfort, mouvement



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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Accommodation-Convergence	A=C-Bar by Dr. med. D. Safra	Result, comfort, mouvement



Background white
Nearpoint: 20 cm

Background: turquoise overlay
Nearpoint: 10 cm

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MEASURING THE CONVERGENCE NEAR POINT

Place the curved end of the A=C-BAR above the upper lip of the patient. Move the white doll with the face side towards the patient's nose root and stop when the doll appears doubled. The convergence near point then can be read from the centimeter scale of the A=C-BAR. Normally the near point of convergence lies within 5cm near in front of the nose. While the white doll moves towards the nose the red doll should appear doubled. The more the white doll comes nearer the more the images of the red doll diverge.

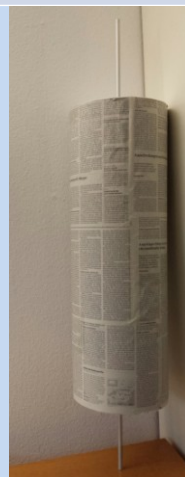
MEASURING THE ACCOMODATION - RANGE.

Place the curved end of the A=C-BAR above the lateral half of the upper lip beneath the eye to be examined. The other eye is kept covered. The patient looks at the two parallel lines of the white doll. Move the white doll towards the eye of the patient and stop when he sees three lines instead of two.

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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
The optokinetic reflex is a combination of a saccade and smooth pursuit eye movements.	Adapted optokinetic nystagmus drum	Comfort, equilibre



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Adapted optokinetic drum



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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Binocularity	30-Prism-Test by Dr. med. D. Safra	Difference in Position, comfortable/uncomfortable, non-verbal reactions



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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Binocularity	30-Prism-Test by Dr. med. D. Safra	Difference in Position, comfortable/uncomfortable, non-verbal reactions



The person describe what the circles do. They can point the position of the circle.

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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Stereopsis	Lang Stereotest	Result, comfort, time to recognise the image.



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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Stereopsis	Lang Stereotest	Result, comfort, time to recognise the image.

Stereopsis or depth perception can be characterized as the highest degree of binocular vision. It therefore represents one of the most important partial functions of the human visual sense.

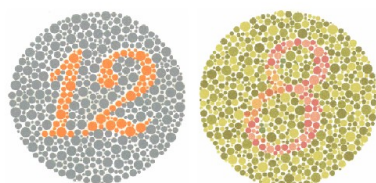
Two level of results:

- Fluency in recognition of the images
- Recognition is only possible with the Irlen Filterglasses

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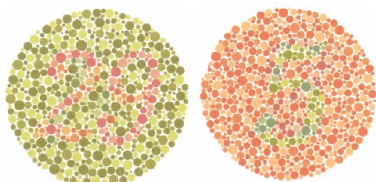
51

Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Color Vision, Color Discrimination	Ishihara (Farnsworth Munsell-100 Farnsworth D15 Lanthony D15)	Ishihara: time needed to recognize the numbers, Strategie to recognize the numbers



Farbtafel 1

Farbtafel 2



Farbtafel 3

Farbtafel 4

Different strategies to read the numbers:

The numbers can be read immediately

Fluency of reading the numbers.

The gaze follow the form and the person try to construct the sign.

Again: Doing the task with and without the lenses.

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Visual function	Assessment Test	Comparing results with/without overlays/spectralfilters
Visual Acuity Contrast Sensitivity	VA-LCS-Testcards by Buser/Steiner	VA, fluency, comfort, hold fixation
need of magnification	SZB need of magnification	need of magnification, fluency, comfort, hold fixation
Accommodation- Convergence	A=C-Bar by Dr. med. D. Safra	Result, comfort, movement
The optokinetic reflex is a combination of a saccade and smooth pursuit eye movements.	Adapted optokinetic nystagmus drum	Comfort, equilibre
Binocularity	30-Prism-Test by Dr. med. D. Safra	Difference in Position, comfortable/uncomfortable, non-verbal reactions
Stereopsis	Lang Test	Time to recognise the image.
Color Vision, Color Discrimination	Ishihara Farnsworth Munsell-100 Farnsworth D15 Lanthony D15	Ishihara: time needed to recognize the numbres, Strategie to recognize the numbres

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Conclusion

Information and communication with all professionals working in the field of light and colors is important.

Development of a common language is essential.

Using functional tests and comparing the results is important.

Different assessment tools can be used by Irlen Diagnostician and Irlen Screener.

It is important to interact between the different professionals using a common professional language.

There are many professional groups who can observe and judge visual performance in school, at working places and in daily living. But they need knowledge and competences in the field of visual perception and in visual perception problems.

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Conclusion

Often are activities practiced and trained, which would need first a normalisation of the basic visual functions
this is very frustrating for patients and for therapists

Both groups, „vision specialists and professionals near to visual activities“ work in their "gardens". The obvious synergies are not exploited. Mourner is the person concerned.

Conclusion

The eye professionals

The standard assessment completed with few additional questions which give indications whether visual perception is impaired although the VA is "normal". Some few examples:

Key Questions

How is it for you to look to the vision chart? (Single sign, row sign, group sign)

What happens when you hold fixation on one sign?

What happens when you cover one eye?

What happens at a reduced illumination?

What happens at a reduction of the luminance (difference black-white)?

Conclusion

We - the "other" eye professionals

Many of us are not used to do vision tests. May be that we think not to be allowed to do such testing.

But we should know more about visual tests and we should do some functional visual tests in our professional activities.

It is important to have such additional instruments to understand important aspects of the general visual performance.

- In order to understand the consequences for reading, learning and many other visual daily living skills.
- In order to have an improved communication to the eye professionals.

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Conquering New Directions...Opening New Horizons

Thank you

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